GYNECOLOGY

UNDER THE CHARGE OF
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Radium in Uterine Cancer.—The experiences with radium in the treatment of uterine cancer at the Memorial Hospital in New York have been presented by BAILEY (*Surg., Gynec. and Obst.*, 1918, xxvi, 625), and he states that the recurrent cases showed the lowest percentage of improvement. The recurrence is usually behind the vaginal vault and the vagina itself is usually foreshortened and contracted. The primary cases are more amenable to the application of radium and the results are slightly better than when previous treatment had been instituted. Twenty-one per cent. of this class showed marked improvement with the possibility of remaining free from cancer. When a period of two years passes a fairly good estimate may be made as to ultimate results, and although not over 15 per cent. of the cases lived to that period, in those that did live the probabilities of complete retrogression are great. On the other hand, over 80 per cent. lived through the first six months, and it is very difficult to sift the good from the bad, for nearly all showed local improvement. Bailey is convinced that the inoperable cases do better without the preliminary Percy treatment, and he also believes that the initial dose of radium should be high and that it should seldom be repeated for the same area. Cross-firing should be made use of from within and from the surface of the body.

Radium in Uterine Hemorrhage.—The term uterine hemorrhage as employed by MILLER (*Surg., Gynec. and Obst.*, 1918, xxvi, 495) is limited to bleeding due to metropathies, disturbed ovarian function, chronic endometritis, metritis and fibroids of the uterus. Bleeding associated with syphilis, chronic liver and heart disease, lung and kidney affections, as well as the ordinary complications of pregnancy, is naturally eliminated and mentioned to emphasize the point that uterine bleeding is only a symptom and demands careful differentiation and accurate diagnosis in its management. Every gynecologist is impressed with the large number of cases of persistent bleeding that eventually require hysterectomy. If he is conscientious he can only regret keenly the necessity of performing a serious mutilating operation, especially when the pathologist reports little if any pathological change in the uterus. Radium has proved to be the long-sought specific in these cases, because of the simplicity of application, the short amount of time required to effect a cure and the uniformly satisfactory results obtained. The most plausible explanation of the action of radium in these cases is that it produces extensive structural changes in the endometrium. The author has had considerable experience along these lines and for the purpose of study has divided his cases into groups. The first group includes the cases commonly denoted as myopathia hemorrhagica (hemorrhage of the menopause). These cases, as a rule, present little

if any defined anatomical cause to account for the bleeding and comprise some of the most serious instances of acute hemorrhage. It occurs most commonly in women approaching the menopause, though it may be found in comparatively young women. The uterus may be normal in size or slightly enlarged, and often presents a normal endometrium. The bleeding is supposed to be due to a disproportion of connective tissue over muscular tissue in the myometrium or to some aberration of ovarian secretion or other ductless glands. In these cases the bleeding was controlled primarily in 100 per cent., with 90 per cent. of permanent results. The average time from the treatment until amenorrhea occurred was four weeks. The second group included patients presenting a history of menorrhagia or metrorrhagia, lasting for months or years, practically all of whom had a uniformly enlarged, hard or occasionally flabby, uterus. Many gave a history of puerperal complications. In some, the origin of the trouble appeared to be extensive lacerations of the cervix, involving the parametrium. These cases are ordinarily classified as chronic metritis, polypoid endometritis, hyperplasia, fibrosis, etc. Amenorrhea was produced in every case within one month after treatment, and all but two of the eighteen cases have recently been communicated with and none report a return of the bleeding. Many presented an enlarged uterus before the treatment, but every one examined three months or longer after the treatment showed a uterus approximately normal in size. The menopausal symptoms seemed to be more pronounced in this group than in any of the other series. The group of myomata comprises 26 cases, and in 22 cases the bleeding ceased within five weeks and has never returned. In 5 cases it was controlled for a few months, but was never so severe after its reappearance, while in 2 of these the menses became regular after eight months. In only 2 cases has the radium failed, and these would very probably have been relieved by another radiation. Control of bleeding is not the only desideratum in treating fibroid tumors; the growth of the tumor must be stopped and, if possible, the tumor be made to disappear. In 16 cases examined from three months to two and a half years after treatment there has been a reduction in the size of the tumor varying from complete disappearance in 3 cases to about one-half the original size in practically 50 per cent. of the number. Some further points in regard to the fibroid group are worthy of comment, namely, most of the growths selected for radium treatment were small, the only large tumors being those presenting contra-indications to operation. This feature is emphasized because Miller does not wish to imply that radium is to supplant surgery in the treatment of fibroids, but it is a most valuable adjunct to surgery. Two cases in this series illustrate conclusively that radium is more effective than the roentgen rays. Both had been given twenty exposures by an experienced roentgenologist, who employed the Gauss technic, with only temporary results. Only one intra-uterine application of radium sufficed to stop the bleeding permanently. In a fourth group the author records 2 cases of serious uterine bleeding in young girls who had been treated by rest, tonics, astringents, ovarian extract and curettage. The uterine scrapings apparently showed hyperplastic glandular endometritis. The application of small doses of radium produced results that were all that could be desired, even though the risk of permanent amenorrhea was greater than should be taken in the ordi-

nary case of this type. Both of these cases now menstruate regularly after a period of amenorrhea which lasted three months. While the results obtained by various authorities with the use of radium are practically the same, the dosage employed has been by no means standardized. It has been practically established that a 1000-milligram-hour exposure is almost certain to produce permanent cessation of the menses, but in the treatment of fibroids the size of the growth and the degree of hemorrhage should govern the amount used and the duration of the exposures. If the only annoyance a woman experiences who suffers from a fibroid is bleeding, is there sufficient justification for performing hysterectomy? To this question the author answers in the negative. If the growth is sufficiently large to produce pressure symptoms, operation is preferable because of the time consumed in reducing it by radium. If evidence of infection or degeneration exists or the appendages are diseased, operation is the best procedure. If the woman is young she should be advised to submit to operation with the idea of performing myomectomy and preserving the uterus. For small and medium-sized growths and those presenting contra-indications to operation, radium is the ideal remedial agent. Submucous growths should be treated surgically unless contra-indications to operation are present, owing to the tendency of this type to become infected or develop other degenerative changes.

End-results of Cystocele Operations.—The condition of the interior of the urinary bladder in patients who have had some sort of cystocele operation has been studied by BROUN and RAWLS (*Surg., Gynec. and Obst.*, 1918, xxvi, 502). In securing the end-results it was considered necessary that at least one year should have elapsed since operation before the examination of the bladder was performed. In all they examined about 50 patients cystoscopically, and with 1 exception none of the patients examined stated that any urinary symptoms they might have had were aggravated by the operation; to the contrary, the very large majority stated that they had been in part or entirely relieved of such symptoms. This fact is very striking, since only 9 of the 49 patients examined showed a normal bladder base. The character of the cystocele operations done upon these patients varied greatly, but in the larger number the operative procedure consisted in freeing the bladder from the vaginal mucosa and uterus, coapting the prevesical fascia under the bladder and approximating the vaginal mucosa after the excess had been removed. In a series of 8 patients the base of the bladder was found to be thrown into horizontal folds of varying degrees of prominence, but the kind of operation done did not seem to bear in a marked degree upon the character and extent of the permanent folds found to be present. As an end-result in all of the 8 patients under consideration in this group it was found that in 6 there were no urinary symptoms, while in the remaining 2 the urinary symptoms prior to the operation were improved. In another group of patients the folds of the base of the bladders were found to be from side to side (transverse), opposite to the direction of the folds of the bladder bases of those just reviewed. Here, again, the character and degree of the convolutions, as in the previous cases, did not bear any definite relation to the kind of operations done and, furthermore, no vesical irritation that was present

could be charged up to the operation. The final group of cases brought together are those on whom the uterus was interposed between the bladder and the vaginal layers, including 10 cases. As would be expected the bladder base was thrown into a large horizontal fold, with deep sulci on one or both sides and also frequently above the fold. Trigonitis, with the frequent presence of dilated capillaries throughout the entire bladder mucosa, was the rule. The vesical symptoms of the patients of this group were as with the patients of the previous groups, remarkably negative. Seven patients were free from any vesical irritation or frequent urination; with one the loss of control before the operation was not relieved. This detailed review of the study of the end-results on these patients, from the view-point of the anatomical condition in which the base of the bladder is left, is surely not of a flattering character. That the abnormal character of the conditions found were permanent cannot be questioned, since they did not disappear under full distention of the bladder as would have occurred if they were merely due to incomplete filling of the bladder at the time of the examination. The query naturally presents itself that although apparently there is no disturbance as a result of this departure from the normal plane-like floor, does not such a state render more possible some future disturbance of a systemic character? The truth of such a possibility cannot, from the nature of the condition, be determined except by painstaking investigation of each individual patient over a long period of years, and this is hardly possible on account of the nomadic character of the average hospital patient.

OPHTHALMOLOGY

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Traumatic Variations in the Tension of the Eyeball.—Magitot (*Ann. d'Oculist.*, January, 1918, 1) publishes a study of the tension of the globe as affected by traumatism, which may show itself either in hyper- or hypotension. He regards this as depending upon two principal causes: active and passive. The former depends upon mechanical interference of the venous circulation in the orbit, hence extra-ocular. This gives rise to hypertension and persists as long as the disturbance in the circulation continues. The latter is due to a traumatism acting upon the intra-ocular vasomotor nervous mechanism. Traumatisms of too slight intensity to determine within the globe grave lesions of the membranes may, however, occasion remarkable alterations in the tension of the organ revealing itself as a disequilibration which becomes sensible as greater or less to the tonometer. Usually the hyper- or hypo-